

U.S. Serial No. 09/941,881
Reply to Office Communication Dated: 3/2/2004
Family Number: P2001J056

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AMENDMENTS TO THE SPECIFICATION

Please replace the name identifying the nitrogen-containing ligand structure "4,4',4"-tri-*tert*-butyl-2,2':6',2"-terpyridine" on the bottom left-hand corner of page 8 of the specification with the name:

-- 4,4',4"-tri-*tert*-butyl-2,2':6',2"-terpyridine --.

Please replace the paragraph describing Example 15 on pages 24-25 of the application with the following amended paragraph:

-- In an argon glovebox, a 30 mL septum bottle was loaded with a 0.0061 g quantity of CuCl₂.2H₂O (FW 170.98, 0.0357 mmol) and 15 mL of toluene. Then, a 0.0130 g quantity of 4,4',4"-tri-*tert*-butyl-2,2':6',2"-terpyridine 4,4',4"-tri-*tert*-butyl-2,2':6',2"-terpyridine (FW 401.60, 0.0324 mmol) ligand was added resulting in the formation of a yellow solution. A 0.77 g quantity of 30 wt % MAO solution in toluene was then added. The yellow solution turned colorless upon MAO addition. Next, 5 g of *n*-butyl acrylate (FW 128.17, 0.039 mol) was added. The bottle was sealed in the glove box and placed in a fume hood. The solution was stirred at 25°C for 72 hours. The viscous solution was added to a MeOH/HCl (300 mL MeOH/100 mL 10% HCl) solution to precipitate the polymer. The product was washed with water, then methanol, and dried in vacuum oven at 60°C for 24 hours. The yield of the poly(*n*-butyl acrylate) was 3.12 g. The IR spectrum (film) of the product showed the characteristic polymer ester absorption peak at 1736 cm⁻¹. On polymerization, the monomeric ester absorption peak shifted from 1728 cm⁻¹ to the polymeric ester absorption at 1736 cm⁻¹. The characteristic double bond absorption peaks at 1637 cm⁻¹ and 812 cm⁻¹ also disappeared upon polymerization. The GPC data (solvent: THF, polystyrene standard) gave a M_n of 124,100 and a M_w of 214,600. ¹³C NMR (ppm, CDCl₃): 13.7 [s, -CH₂-CH(COOCH₂CH₂CH₂CH₃)-], 19.1 [s,

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-CH₂-CH(COOCH₂CH₂CH₂CH₃)-], 30.7 [s, -CH₂-CH(COOCH₂CH₂CH₂CH₃)-],
34-37 [m, -CH₂CH(COOCH₂CH₂CH₂CH₃)-], 41-42 [m, -CH₂-
CH(COOCH₂CH₂CH₂CH₃)-], 64.5 [s, -CH₂-CH(COOCH₂CH₂CH₂CH₃)-], 174-175
[m, -CH₂-CH(COOCH₂CH₂CH₂CH₃)-]. There were no resonances due to olefin from
the monomer. --